REMARKS

By this Amendment the specification has been amended to include topic headings and claims 1-19 have been replaced by new claims 20-39, which better define the inventive process. Entry is requested.

In the outstanding Office Action the examiner has (1) rejected claims 1-14 and 17-19 under 35 U.S.C. 103(a) as being unpatentable over WO '166 in view of Lefebvre and Mickols, (2) rejected claims 15 and 16 under 35 U.S.C. 103(a) as being unpatentable over WO '166 in view of Lefebvre, Mickols and Herron et al., and (3) rejected claims 1-3, 7-9 and 15-19 under 35 U.S.C. 103(a) as being unpatentable over Yaeli in view of Mickols and Lefebvre.

The applicants assert that these rejections cannot be applied to the new claims.

WO 97/18166 (Herron et al.) disclose a direct osmotic concentration of contaminated water containing high levels of salts and suspended solids by contacting the contaminated water stream with one side of a semi-permeable membrane whose other side is in contact with an aqueous brine solution at a higher osmotic pressure, so that pure water passes through the membrane from the contaminated stream into the brine solution, and then recovering pure water from the aqueous brine solution by a reclamation procedure such as reverse osmosis, electrodialysis, evaporation or a combination thereof. There is no disclosure of any nanofiltration steps.

Lefebvre discloses a hydrophobic semi-permeable membrane process for the concentration of a dilute solution of low osmotic pressure by osmotic distillation, this being a separation process using a difference in osmotic pressure between two fluids separated by a hydrophobic semi-permeable membrane to achieve a concentration of the fluid having the lower osmotic pressure. This can be combined with reverse osmosis to recover solvent (e.g., pure water). There is no disclosure of a nanofiltration step.

Mickols is directed to a method of treating polyamide composite membranes with amines to increase the flux rate through membranes in a filtration operation. This patent teaches that the flux rates of both nanofiltration and reverse osmosis membranes may be altered by the treatment of the membranes having a polyamide discriminating layer with amines. There is, however, no disclosure to suggest or motivate a person of ordinary skill to combine the use of a nanofiltration membrane and specifically selecting the solute species of the second solution so that they can be separated by nanofiltration, allowing solvent to be recovered in an efficient manner as required by the present invention. By using a nanofiltration membrane, the efficiency of this solvent recovery step is greatly enhanced, as solvent can be extracted at a much higher rate than with a reverse osmosis membrane.

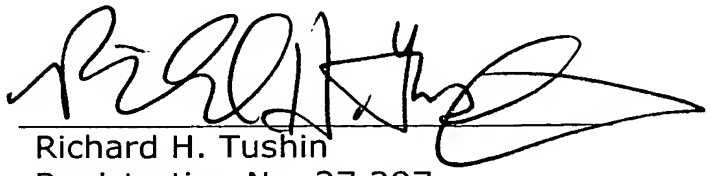
The examiner's rejection based on WO 97/18166 in view of Lefebvre and Mickols should be withdrawn. And nothing in Herron et al. '430 would overcome the noted deficiencies.

Yaeli disclose a method and apparatus for reducing the concentration of a first substance in a first liquid by (a) subjecting the first liquid to natural osmosis, via a first semipermeable body, with respect to an intermediate liquid, which intermediate liquid is a solution or suspension of a second substance in a second liquid, the second liquid being the same as the first liquid and passing through the first semipermeable body, the second substance being of larger molecular size than the first substance and not passing through the first semipermeable body, whereby the quantity of the second liquid in the intermediate liquid is increased; and then (b) subjecting the intermediate liquid to reverse osmosis under pressure via a second semipermeable body to pass therethrough the second liquid.

Thus, Yaeli does not suggest the steps defined in amended claim 1, and Mickols and Lefebvre cannot overcome the deficiency.

Favorable reevaluation of this application is requested.

Respectfully submitted,

By: 

Richard H. Tushin
Registration No. 27,297
Franklin Square, Third Floor West
1300 I Street, N.W.
Washington, DC 20005-3353
(202) 906-8680